

# Aarhus University is seeking two postdoctoral fellows for the Novo Nordisk Foundation CO<sub>2</sub> Research Center (CORC) for research on systems-level biology of prokaryotic conversions of CO<sub>2</sub>

Do you have a passion and vision for developing new platforms to unleash the power of **microbial metabolism and physiology to find scalable solutions for CO<sub>2</sub> capture and conversion**?

Come and be part of the team of Prof. Alfred Spormann in the Department of Chemistry at the NNF CO<sub>2</sub> Research Center (CORC) to engage in cutting edge systems-level research in microbial C1-6 metabolism!

## Starting date and duration of employment

The positions are available from 01 July 2026 or as soon as possible thereafter, and are for a period of up to 2,5 years and until the end of 2028, when CORC will end.

## The two relevant research projects for these positions in the Spormann lab are

- 1. Microbial conversion of CO<sub>2</sub> to carbon materials.** This project pursues approaches probing the plasticity of cellular electron and carbon fluxes and quantitative modeling thereof. It also includes the isolation of new alkalophilic and hydrogenotrophic methanogens and acetogens, as well as Knallgas bacteria, the construction and quantitative characterization of mixed defined microbial communities, including adaptive evolution. This project is a collaboration with chemists to produce high quality carbon materials from waste CO<sub>2</sub>.
- 2. Systems biology of microbial conversion of CO<sub>2</sub> to methane or C<sub>2</sub>-C<sub>6</sub> acids and alcohols.** This project pursues approaches i) to uncover carbon and electron fluxes in methanogenic, acetogenic and chain-elongation fermentation in various microbial platforms, ii) to probe via genetic manipulations the dynamics and limitations of carbon and electron flux and iii) to identify pattern of coordination of major cellular processes. A second aspect of this project is the genetic analysis of laboratory-evolved, adapted strains and identification and testing of the evolved cellular networks. This also includes construction and operation of defined microbial communities, and modeling on metabolic interactions.

## Your qualifications

You should have a PhD in microbiology, molecular biology, molecular genetics, or related field, and demonstrated expertise in

- *Prokaryotic genetics, molecular genetics, or molecular biology, or*
- *Biophysical modeling of quantitative cellular processes in prokaryotes,*

Candidates should have a strong, proven background in quantitative experimental microbiology. Experience in anaerobic microbiology as well as in metabolomics, proteomics, stable isotope probing (SIP) or genetic characterization of evolved strains from adaptive laboratory evolution experiments is a plus. Your high personal motivation and demonstrated scientific creativity will match that of our expert team.

## About us

We are a modern, state-of-the-art molecular and metabolic lab with a highly motivated and collaborative team of researchers, which is reflected in our use of English as the day-to-day language. <https://corc.au.dk/corc-research/research-group-spormann>

The Department of Chemistry at Aarhus University is a leading European chemistry department with a broad research portfolio. It is undertaking a restructuring and will have a permanent staff of 43 full, associate and assistant professors, a support staff of ~40 technical and administrative staff, ~150 PhD-students and ~100 postdocs and

**Application Deadline:**  
19 April 2026

**Institute/Faculty:**  
Department of  
Chemistry

**Faculty:**  
Faculty of Natural  
Sciences

**Academic contact  
person:**  
Alfred Michael  
Spormann  
aspormann@inano.au.  
dk  
+4593522579

**Vacant positions:**  
2

**Number of months:**  
30

**Hours per week:**  
37

**Expected date of  
accession:**  
01/07/2026

around 350 students. In addition to excellence in research, teaching and supervision, the Department of Chemistry values equal opportunities, a collegial atmosphere, and a student-friendly mindset of future colleagues.

### What we offer

- Exciting, interdisciplinary research environment at the forefront of microbial systems-level biology for CO<sub>2</sub> mitigation.
- Workday with daily contact with many different people in an international and creative research environment.
- A professional, but informal work environment.

### Place of work and area of employment

The place of work is Gustav Wieds Vej 10, 8000 Aarhus C, and the area of employment is Aarhus University with affiliated institutions.

As of 1 August 2026, iNANO's educational and research activities will be transferred to the faculty's departments. Consequently, your employment will as of that date be with a department.

### Contact info

Applicants seeking further information are invited to contact Professor Alfred Spormann, e-mail: [aspormann@corc.au.dk](mailto:aspormann@corc.au.dk)

---

### Application procedure

Shortlisting is used. This means that after the deadline for applications – and with the assistance from the assessment committee chairman, and the appointment committee if necessary, – the head of department selects the candidates to be evaluated. All applicants will be notified whether or not their applications have been sent to an expert assessment committee for evaluation. The selected applicants will be informed about the composition of the committee, and each applicant is given the opportunity to comment on the part of the assessment that concerns him/her self.

### Letter of reference

If you want a referee to upload a letter of reference on your behalf, please state the referee's contact information when you submit your application. We strongly recommend that you make an agreement with the person in question before you enter the referee's contact information, and that you ensure that the referee has enough time to write the letter of reference before the application deadline. Unfortunately, it is not possible to ensure that letters of reference received after the application deadline will be taken into consideration.

If you wish to add a referee **after** you have submitted your application, you must send this person's details (name, job title, place of work, and email address) as well as the name of the position you have applied for to: [HR.Nattech@au.dk](mailto:HR.Nattech@au.dk)

### Formalities and salary range

Natural Sciences refers to the [Ministerial Order on the Appointment of Academic Staff at Danish Universities under the Danish Ministry of Science, Technology and Innovation](#).

The application must be in English and include a curriculum vitae, degree certificate, a complete list of publications, a statement of future research plans and information about research activities, teaching portfolio and verified information on previous teaching experience (if any). Guidelines for applicants can be found [here](#).

Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations. Further information on qualification requirements and job content may be found in the [Memorandum on Job Structure for Academic Staff at Danish Universities](#).

Salary depends on seniority as agreed between the Danish Ministry of Taxation and the Confederation of Professional Associations.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

Research activities will be evaluated in relation to actual research time. Thus, we encourage applicants to specify periods of leave without research activities, in order to be able to subtract these periods from the span of the scientific career during the evaluation of scientific productivity.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Read more [here](#). Please find more information about entering and working in Denmark [here](#).

Aarhus University also offers a Junior Researcher Development Programme targeted at career development for postdocs at AU. You can read more about it [here](#).

At the Faculty of Natural Science at Aarhus University, we strive to support our scientific staff in their career development. We focus on competency development and career clarification and want to make your opportunities transparent. On [our website](#), you can find information on all types of scientific positions, as well as the entry criteria we use when assessing candidates. You can also read more about how we can assist you in your career planning and development.

*The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.*

#### **Aarhus University**

*Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 37,000 students (FTEs) and 8.700 employees and has an annual revenue of EUR 1.106 billion. Learn more at [www.international.au.dk/](http://www.international.au.dk/)*